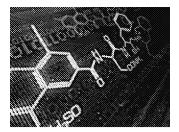
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BNA DAILY ENVIRONMENT REPORT ARTICLES

Gene Editing a Promising Tool to Study Chemical Health Effects



Gene-editing technologies have the potential to offer new insights into the ways chemicals affect people and the environment, an EPA scientist said at a recent National Academies workshop.

Chemical Makers Keen to Get EPA Answers to Aid Compliance



The EPA should post online answers to chemical manufacturers' questions, so companies can meet a Feb. 7 deadline to notify the agency about chemicals in commerce, industry attorneys said. "It's imperative EPA release questions and answers as quickly as possible," particularly related to issues arising for some chemical importers, said Karyn Schmidt, senior director of regulatory and technical affairs at the American Chemistry Council. The EPA did not respond to ...

INSIDEEPA.COM ARTICLES

Attorneys Urge More Industry Engagement On TSCA In Face Of Citizen Suits

Attorneys are urging industry groups to more closely track and engage with environmentalists' litigation under the new Toxic Substances Control Act (TSCA), saying initial suits could set important precedents that will determine how the new law is ultimately implemented.

Industry Readies Options For EPA To Speed TSCA New Chemical Reviews

Industry attorneys are backing EPA plans to streamline its process for reviewing new chemicals under the revised Toxic Substances Control Act (TSCA), but they are crafting comments that will offer additional options, including improved pre-submission consultations, new data guidelines and consideration of existing rules before regulating new chemicals and their uses.

EPA Continues Work On PFAS, But Rules Unlikely Despite Growing Pressure

Despite growing attention to contamination from perfluorinated chemicals (PFAS), EPA is unlikely in the near term to develop enforceable cleanup standards, leaving it up to states to shoulder the responsibility for what may become a patchwork of standards even as public pressure to address the issue grows.

Senate Democrats Query Pruitt On New EPA Advisors' Conflicts Of Interest

Two Senate Democrats are raising concerns over EPA Administrator Scott Pruitt's recent selection of two scientists to join agency advisory panels, citing claims in public comments that the advisors have conflicts of interest because they have received funding from industry groups and saying they may lack "appropriate" scientific qualifications.

SAB Director To Retire, Furthering Erosion Of Its Institutional Memory

The director of the EPA staff office that manages its Science Advisory Board (SAB) and Clean Air Scientific Advisory Committee (CASAC) is retiring, further eroding institutional memory within some of EPA's highest profile advisory committees after Administrator Scott Pruitt's controversial efforts to overhaul their memberships.

Pruitt Seeks To Halve EPA Workforce Despite Obama Administration Warning

EPA Administrator Scott Pruitt is pushing ahead with plans to reduce EPA's workforce by up to 50 percent at the end of President Donald Trump's first term, despite warnings from the Obama administration that retaining "top talent" at EPA is a "key challenge," according to a transition briefing paper obtained by *Inside EPA*.

Environmentalists Urge Court To Allow Broad TSCA Review Of Fluoride Risks

Environmental and public health groups are urging a federal judge to allow a broad *de novo* review when it hears arguments in their pending litigation challenging EPA's denial of their Toxic Substances Control Act (TSCA) petition, pushing back against agency claims that any risk review is limited to data in the agency's administrative record.

Attorneys Urge More Industry Engagement On TSCA In Face Of Citizen Suits

Attorneys are urging industry groups to more closely track and engage with environmentalists' litigation under the new Toxic Substances Control Act (TSCA), saying initial suits could set important precedents that will determine how the new law is ultimately implemented.

CHEMICAL WATCH ARTICLES

US mercury reporting schedule set to clash with state programme

Industry also expresses CBI concerns

15 January 2018 / Metals, Substance notification & inventories, TSCA, United States



The US EPA is facing a dilemma in reconciling the new mercury reporting regime required by 2016's amended TSCA with the existing data collection performed by the Interstate Mercury Education and Reduction Clearinghouse (Imerc).

The Lautenberg Act requires the EPA to publish a mercury inventory every three years. The <u>initial inventory</u>, published in March 2017, consisted of readily available, previously published data.

The new TSCA requires the ongoing inventory to include data from all manufacturers that use mercury or make products containing it. Rules governing the inventory are to be finalised by 22 June.

And last October the EPA proposed reporting requirements for the new inventory.

But, in the consultation that followed, Imerc pointed out that its 13 member states report on mercury products on a three-year schedule that began in 2001. Data for calendar year 2016 had to be reported by April 2017 and data for calendar year 2019 will be due by April 2020.

The EPA plan for a national registry would run to a different schedule, Imerc said. Data for calendar year 2018 will be due on 1 July 2019, and subsequent reports at three-year intervals will also cover the 12-month period two years earlier.

The proposed regulations exempt companies reporting to Imerc from the federal requirements, it noted. But this would mean that companies reporting to it and those reporting to the national programme would do so in different years, "preventing the US from having an accurate national mercury inventory".

Alternatives

If the EPA were to remove this exemption, it would significantly increase the reporting burden on companies, as they would then have to report to both Imerc and the EPA.

Imerc could change its reporting schedule, but this "would have significant financial implications" and it said it "would require dedicated funding" to implement that change.

Finally, Imerc said, the EPA could change its proposed reporting schedule to match its cycle, but "this option could leave EPA vulnerable to potential litigation" for not meeting the deadlines set by TSCA.

Imerc also urged the EPA to reconsider its decision to exempt from reporting manufacturers and importers of products whose mercury source is a component within a larger product. This conflicts with several state laws, it said, adding that the information "helps state and local agencies and others understand which consumer products have mercury in them, track where the mercury is going, and how it is ultimately recovered/recycled".

Finally, the organisation asked that the EPA adopt the reporting units used by Imerc rather than requiring all reporting to be done in terms of pounds.

CBI concerns

In other comments, the Hach Company, which produces laboratory reagents used to analyse water quality, asked that the EPA protect confidential business information (CBI) by allowing companies to report the amounts of mercury they use in ranges rather than specific amounts.

Similarly, it said that if companies are required to report on the exact amounts of mercury and mercury compounds exported to specific countries, the EPA should not make that information public.

The Westlake Chemical Corporation also raised a CBI concern, asking that companies be allowed to report total mercury quantities used in a manufacturing process, rather than for individual activities within the process. The corporation uses mercury in its chlor-alkali manufacturing facility to produce chlorine and sodium hydroxide.

Savannah River Nuclear Solutions asked that its facilities be exempt from reporting on mercury they use to process spent nuclear reactor fuel. Under the proposed rule, mercury-containing waste would be exempt unless the mercury is recovered with the intent to use it. The company recovers and reuses the mercury generated in its processing.



Julie A Miller

North American Desk Editor

Related Articles

- US EPA publishes initial mercury inventory
- US EPA proposes mercury reporting rules

Further Information:

Mercury inventory docket

ACC urges EPA to update persistent, bioaccumulative and toxic criteria

TSCA amendments require expedited action

15 January 2018 / Persistent, bioaccumulative & toxic, TSCA, United States



The American Chemistry Council (ACC) has urged the US EPA to update its criteria for identifying and evaluating "persistent, bioaccumulative and toxic" (PBT) substances before it completes rapid risk management action on five PBT substances, as required by the new TSCA.

The organisation has also encouraged the agency to use only "credible" sources of information on current uses of PBTs.

The Lautenberg Chemical Safety Act requires the agency to take "expedited" action on certain PBTs by skipping their risk evaluation and proceeding directly to imposing rules to reduce their exposure.

Proposed risk management rules are due by 22 June 2019, with final rules to follow within 18 months.

The agency <u>announced</u> in October 2016 that it would take action on the following substances:

- decaBDE, a brominated flame retardant used in textiles, plastics, wiring insulation, and building and construction materials;
- hexachlorobutadiene (HCBD), used as a solvent in the manufacture of rubber compounds and as a hydraulic, heat transfer or transformer fluid;
- pentachlorothiophenol (PCTP), used as a sulfur cross-linking agent to make rubber more pliable in industrial uses;
- tris(4-isopropylphenyl) phosphate (IPTPP), used as a flame retardant in consumer products and as a lubricant, hydraulic fluid, and in other industrial uses; and
- 2,4,6-tris(tert-butyl) phenol, an antioxidant that can be used as a fuel, oil, gasoline or lubricant additive.

The EPA published preliminary information on exposure and use for each of the five, as well as what it expects to consider in the development of the proposed rules. The deadline for stakeholder input was later <u>extended</u> to 12 January.

Despite the deadlines, updating the "outdated" PBT criteria used in the EPA's work plan is consistent with the "scientific requirements" of TSCA and the agency's regulations for implementing it, the ACC said in its comments.

In addition, the ACC says, the EPA should rely on industry reports for its assessments of current use patterns: "Use information provided by industry to a chemical regulatory authority is far more reliable than anonymous postings on websites by unknown sources of dubious accuracy and lacking credibility and unverified sites and sources."

The organisation also warned that the US Department of Health and Human Services Household Products Database has not been comprehensively updated. It should be consulted only as a "starting point in EPA's inquiry" it argued.

In addition, the ACC said, the agency should acknowledge the "limitations" of information in its Toxic Release Inventory Information (TRI) database and clearly state how it intends to use that information in its PBTs work.

The industry group suggested the EPA consult the REACH database and the Downstream Users of Chemicals Coordination Group (Ducc) for information on chemical use in Europe.

Other comments

Among other comments, the International Association of Firefighters submitted comments urging the EPA to consider the risk flame retardants such as decaBDE pose to firefighters who inhale toxic smoke.

And the law firm Akin Gump wrote on behalf of an industry client that IPTPP is used in the aviation sector only in closed hydraulic systems and worker exposure is "very minimal".

"The importance of the reliability and consistency of these products to the industry and end-users cannot be understated," it said.



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North American Desk Editor

Related Articles

- EPA names TSCA fast-tracked PBTs
- PBTs consultation deadline extended by US EPA

Further Information:

Links to PBT dockets

National Academy to run workshop on changes to IRIS

15 January 2018 / TSCA, United States

A committee of the US National Academy of Sciences (NAS) is running a public workshop, to review advances made by the Integrated Risk Information System (IRIS) process.

The EPA has asked this committee to assess changes implemented or planned by the agency in response to recommendations made in various NAS reports, including the:

- Review of EPA's Integrated Risk Information System (IRIS) process; and
- Review of the Environmental Protection Agency's draft IRIS assessment of formaldehyde.

The workshop, on 1-2 February in Washington DC, will serve as a venue for the EPA to present its changes to IRIS, and for stakeholders to make contributions.

The committee will base its assessment on information received at the workshop.

The IRIS programme has come under scrutiny in recent months. In <u>November</u> the Senate Appropriations Committee released a proposal that would eliminate the programme. However, the meeting notice states: "Public comments should be relevant ... this workshop is not a forum to debate the value of the IRIS programme."

Related Articles

US Senate spending bill would eliminate IRIS programme

Further Information:

Registration

Government promise of UK chemicals strategy 'helpful', CIA says

But questions remain over REACH alignment

15 January 2018 / REACH, United Kingdom



The UK government's proposal to publish a chemicals strategy, while it continues its process of leaving the EU is "helpful", says Chemical Industries Association head Steve Elliott.

The promise was included in the 25-year environment plan, published last week by the environment ministry (Defra).

The reference to the strategy is helpful, said Mr Elliott, "because we don't want to start off on something new that can potentially duplicate or conflict with all of our current existing commitments under REACH". Clarification of what Brexit will deliver in the area of chemicals, he said, is the "first priority".

A reference in the document to tackling "chemicals of national concern that will build on existing approaches" caught Mr Elliott's eye. "I don't know what that phrase means," he said, but added that CIA was keen to play its part and work with Defra and the Department for Business, Energy and Industrial Strategy.

Susanne Baker from trade body techUK said that after years of building expertise on, and investing in, REACH, "we hope that whatever emerges goes with the grain of existing domestic and international business practices and avoids unnecessary duplication of effort."

'Vague' and 'evasive'

Michael Warhurst from NGO CHEM Trust criticised the government's proposed actions as "vague and unambitious". It is essential, he said, that the UK remains in the REACH regulatory system, "yet this is not mentioned in the strategy."

"It was reported in the Financial Times [last week] that the UK government does want to stay in the REACH system," he said. "It's time for the government to stop being vague and evasive on this issue, and instead come out clearly for staying in REACH."

The UK environment ministry told Chemical Watch the timetable for the chemicals strategy will be developed "in light of the progress of negotiations with the EU", so that it "can incorporate priorities for our domestic regulation and reflect our future relationship with the EU".

*Chemical Watch is running a survey on the impact of Brexit. Take part by clicking on <u>this link</u>.



Luke Buxton

Europe desk editor

Related Articles

UK promises post-Brexit chemicals strategy that reflects future relations with EU

Further Information:

25-year plan

EU opens consultation on plastic marine litter

15 January 2018 / Europe

The European Commission is conducting a public consultation on single-use plastics and fishing gear to guide future action on reducing marine litter.

The two-month exercise will provide input, opinions and data for a follow-up to the Commission's plastics strategy, it says.

The deadline for comments is 12 February.

Plastics make up 85% of beach litter, the Commission says, and single-use items such as drinks bottles, cigarette butts, crisps packets and sanitary towels represent 61% of these. Another concern is pollution caused by fishing gear – "lost by accident or discarded" – which accounts for 20% of plastics litter.

The strategy on plastics will form part of the EU circular economy package. The Commission published the <u>roadmap</u> a year ago and the strategy itself will be published on 16 January, the EU executive recently told Chemical Watch.

In a letter last December, <u>Denmark</u> urged the Commission to help plug knowledge gaps as it prepares the strategy. Measures should include reducing short-lived and single-use plastics through innovative projects, it said.

Elsewhere in Europe, last week the UK's environment ministry <u>published</u> its 25-year environment plan, which outlines ways to reduce plastic use.

Related Articles

- EU Commission issues plastics in circular economy roadmap
- Help close microplastic knowledge gaps, Denmark tells Commission
- UK promises post-Brexit chemicals strategy that reflects future relations with EU

Further Information:

Consultation

Efsa consulting on nano risk assessment guidance

Comments accepted until 4 March

16 January 2018 / Europe, Food & drink, Nanomaterials, Risk assessment



The European Food Safety Authority (Efsa) has launched a public consultation on a draft guidance paper for the risk assessment of nanomaterials. It covers their use in the food and feed chain, including food contact materials and pesticides.

The consultation is open until 4 March.

Efsa says it is hoping "in particular [for] scientific comments from those developing nanomaterials and those who perform the safety tests." After considering responses during March and April, it plans to publish the final paper before the summer.

This is the first revision to Efsa's nanomaterials guidance since <u>2011</u>. The authority says it has included relevant scientific developments that have taken place since.

There is, for example, more emphasis on whether a nanomaterial quickly and fully degrades in digestive tract conditions. Efsa has included this as a key first step in its stepwise proposal.

And the approach to exposure assessment has been redesigned, it says. The paper includes a new tiered method for hazard characterisation. Depending on the initial tier results, it asks for studies to investigate:

- reproductive and developmental toxicity;
- immunotoxicity;

- allergenicity;
- neurotoxicity;
- · effects on the gut microbiome; and
- endocrine activity.

As in the 2011 guidance, Efsa has focused its approach on oral exposure to nanomaterials through ingestion. But it has now added dermal exposure and inhalation factors to assess their presence in feed additives and pesticides.

Definition

Another key difference to the old guidance is how the latest paper defines a nanomaterial. It takes into account recently published definitions and legal frameworks that touch upon how to decide whether a compound is a nanomaterial or not.

EU sectoral regulations, such as the cosmetic products Regulation, biocidal products Regulation (BPR) and the regulatory framework for food, include similar nano-specific provisions, with varying legal definitions.

Many of these can be considered, to decide whether a material is in scope of Efsa's guidance. The definition in the BPR, for example, should be used as a guide to identify nanopesticides.

But until the definition is finalised in food law, it will be unclear which materials should be in scope of the guidance, Efsa says. As a rough guide, they can be defined by the European Commission's <u>Recommendation</u> as substances with 50% of particles or more between 1nm-100nm in size.

However, the long delayed Recommendation has not yet been adopted. It is currently being reviewed by stakeholder groups.



Vanessa Zainzinger

Biocides editor

Related Articles

- EFSA stresses challenges of assessing nanomaterials in foods
- EU consults on nanomaterial definition

Further Information:

Guidance and consultation

Echa adds seven SVHCs to candidate list

Most substances are carcinogens; BPA entry updated

16 January 2018 / Electrical & electronics, Personal care, REACH, SVHCs



Echa has <u>added</u> seven substances of very high concern (SVHCs) to the REACH candidate list, which now contains 181 substances.

Chrysene and benz[a]anthracene have been added due to their carcinogenic, persistent, bioaccumulative and toxic (PBT) and very persistent and very bioaccumulative (vPvB) properties. They are not normally manufactured as single chemicals but occur as a constituent or impurity in other substances, the agency says.

Cadmium nitrate, cadmium hydroxide and cadmium carbonate are listed due to their carcinogenic, mutagenic and specific target organ toxicity after repeated exposure (Stot Re) properties. They are used in the following products:

- cadmium nitrate: manufacture of glass, porcelain and ceramic products and in laboratory chemicals;
- cadmium hydroxide: manufacture of electrical, electronic and optical equipment and in laboratory chemicals; and
- cadmium carbonate: a pH regulator and used in water treatment products, laboratory chemicals, cosmetics and personal care products.

Another entry is reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with \geq 0.1% w/w 4-heptylphenol, branched and linear]. It has endocrine disrupting properties for the environment and is used as an additive in lubricants and greases.

And <u>dechlorane plus</u> is on the list because of its vPvB qualities. It is used as a non-plasticising flame retardant, in adhesives and sealants, and in binding agents.

BPA update

The agency has also updated the entry for bisphenol A (BPA). This is to reflect an additional reason for inclusion, due to its endocrine disrupting properties causing adverse effects to the environment.

This update was prompted by Echa's Member State Committee (MSC) <u>agreeing</u> with Germany's proposal at is meeting in December.

The chemical is used in the manufacture of polycarbonate, as a hardener for epoxy resins, as an anti-oxidant for processing PVC and in thermal paper production.

Earlier this month, MEPs <u>voted</u> to reject a motion calling for a total ban on BPA in food contact materials. This has paved the way for a European Commission draft Regulation that lowers migration limits to be adopted.

And in July, Echa <u>added</u> perfluorohexane-1-sulphonic acid and its salts (PFHxS) to the candidate list because of its vPvB properties.

The candidate list comprises substances that may have serious effects on human health or the environment. Such substances are candidates for possible inclusion in the authorisation list (Annex XIV). Companies using chemicals on Annex XIV will need to apply for permission to continue to use them if there are no alternatives.

Related Articles

- Echa consults on proposals to identify nine SVHCs
- Echa consults on UK dechlorane plus candidate list proposal
- Echa's MSC agrees BPA is an endocrine disruptor in the environment
- MEPs reject motion for total ban on BPA in FCMs
- PFHxS added to REACH candidate list

Further Information:

- · Echa announcement
- Candidate list

Danish study finds understanding of microplastics 'extremely defective'

Calls for systematic approach to measurement

16 January 2018 / Denmark, Microplastics, Risk assessment



The current understanding of microplastics is "extremely defective", according to a study in Denmark that found more analytical methods are needed to assess the scale of the problem.

The Partnership for Microplastics report, released by the Danish EPA, highlights how little is known about the effects of microplastics on the environment.

Microplastic is defined as pieces of plastic less than 5mm in diameter. Most, though, are smaller than 1mm and cannot be seen by the naked eye. The largest discharge of microplastic comes when small pieces of plastic are worn away from larger pieces, for example, when unscrewing the lid off a plastic bottle.

Findings

The research, carried out by the Danish Technological Institute with environmental consultancy group COWI, looked at existing techniques for measuring microplastics, to see how challenges in sampling, sample treatment and analyses could be used to develop new methods.

In order to tackle and quantify the problem, a standardised analytical method needs to be developed to measure the smallest particles, their report says.

It found that the most commonly used analysis method – light microscopy – is unable to analyse particles smaller than $100\mu m$, or determine microplastic types.

The report identifies the "great differences" in the types and size of microplastics being discharged from wastewater treatment plants. The problem is that analysis is often only able to focus on larger particles, it says.

Source tracking

The report says that though limited data exists on the type of plastic, this information can be relevant to:

- source tracking;
- · the fate of the microplastics during wastewater treatment; and
- the strain microplastics cause the environment as pollutants.

The report points to a 2015 study that showed that car tyres are the largest source of microplastic discharged into Denmark's aquatic environment. Tyres account for approximately 60% of the problem, but there is no available research because of the lack of method to assess such small particles.

The project also identified microplastics carried by storm water from streets and roofs as another area where data is lacking.

It is estimated that in 2015 heavy storms saw 4% of wastewater bypassing treatment centres. Despite the modest amount of water involved, the report says, this could easily have contributed "more to the total pollution of the aqueous environment than discharges from treatment plants".

Going forwards

Looking to the future, the report says new analytical methods are under development and, at this stage, "it is not possible to recommend a future cost effective method" for treatment plants.

"The report shows in short that we know too little to conclude very much about microplastics," said Denmark's Environment and Food Minister Esben Lunde Larsen. "Lack of knowledge leads easily to fear and speculation. I would like us to start working on getting more knowledge so that we can address the challenge on an informed basis."

Meanwhile, the Danish EPA is also searching for a reliable test <u>method</u> to measure levels in drinking water. The study is due to be completed early this year.

Last month, the Danish government <u>urged</u> the European Commission to help plug knowledge gaps on microplastics as it prepares to publish its EU plastics strategy.

Related Articles

• Denmark to test drinking water for microplastics

• Help close microplastic knowledge gaps, Denmark tells Commission

Further Information:

- Study (in Danish)
- Press release (in Danish)

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Small Plastic Microfibers Pose Big Health Threat, Experts Say

Newsmax

"We've established the ubiquity of these plastics, we've established that they are being ingested, we know that plastics absorb **toxic chemicals**, and we know the health impact of those chemicals," says Mason, chair of the Geology and Environmental Science Department at the State University of New ...

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mindbodygreen.com

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Call for ban on food packaging chemical

Times of Malta

"This is happening across the board, so we find ourselves eating small quantities of countless **toxic chemicals**. People are not aware of this and food producers justify their actions by saying that it is within the limits of European Union food regulation," he said. "The problem of course with this reasoning is ...

Comments on EPA's Alternative Test Method Strategic Plan

Natural Resources Defense Council

Under the amended **Toxic Substances** and Control Act, Congress directed EPA to develop a Strategic Plan "to promote the development and implementation of alternative test methods and strategies to reduce, refine, or replace vertebrate animal testing and provide information of equivalent or better ...

A clean start for the New Year

taosnews

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